



Seminar on Treatment Effects: Estimation and Inference
Tomasz Olma and Vincent Starck
LS (Seminar)
Sommersemester/summer semester 2026

Treatment effects are the central object of interest in the econometrics of program evaluation. In this seminar, we will cover a series of recent developments in the theory and practice of estimation and inference on treatment effects based on experimental as well as observational data. We will focus on two main blocks.

1. Estimation and inference with clustered data. Standard econometric theory typically assumes that the observations are independently and identically distributed (i.i.d.). In many applications, however, observations are correlated within clusters (e.g., regions, firms, or time periods), violating this assumption and invalidating conventional inference. We will discuss modern methods for cluster-robust inference that account for within-cluster dependence.
2. Models with latent variables. Latent variable models arise frequently in econometrics due to unobserved components, measurement errors, or hidden steps and often lead to identification issues and challenges to estimation. We will discuss approaches to identification using further restrictions or auxiliary information, estimation of parameters, or derivation of robust estimates in such frameworks.

Students will work on a selected research paper throughout the semester and meet periodically with an assigned instructor to discuss their progress.

Studiengang: <i>Program:</i>	MSc
Termin Vorbesprechung (tt.mm.jjjj): <i>Date of preliminary meeting (dd.mm.yyyy):</i>	April 2026, Registration will be in March 2026 via LSF (1.03-21.03.2026).
*Bearbeitungszeitraum für die Hausarbeit: <i>*Working period for term paper:</i>	Until August 2026
*Seminartermin: <i>*Seminar date:</i>	July 2026
Veranstaltungsort: <i>Venue:</i>	Institut für Statistik Ludwigstr. 33
falls außerhalb: Kostenschätzung: <i>if out of Munich: estimated costs:</i>	€
Sprache: <i>Language:</i>	English
Empfohlene Vorkenntnisse: <i>Recommended courses:</i>	Causal Inference (Wilhelm) Econometric Theory (Olivares)
Methodischer Schwerpunkt: <i>Methodological background:</i>	Intermediate Econometrics and Probability & Statistics at advanced undergraduate level.
*Grundlagenliteratur: <i>*Basic references:</i>	
*Kontakt: <i>Contact:</i>	Vincent Starck (v.starck@lmu.de) Tomasz Olma (t.olma@lmu.de)

* Optional (falls schon bekannt) / optionally (if already known)